

## Amendment

### **B. Amended Claims**

In accordance with amendment practice pursuant to Rule 1.121(c)(1)(i), presented below is a “clean” set of “rewritten claims.” A “marked up” version of these claims is attached hereto pursuant to Rule 1.121(c)(1)(ii).

--1. (Currently Amended) A method of making a biodegradable article having a permeability to water vapor of less than  $350 \text{ gx}30\mu\text{m}^2$  per day at  $38^\circ\text{C}$  and 90% RH comprising:

manufacturing articles from aliphatic polyester resin,

wherein said aliphatic polyester resin further comprises

a) recurring units  $X = [\text{O}-(\text{CH}_2)_n-\text{OCO}-(\text{CH}_2)_m-\text{CO}]$  and/or  $Y = [\text{O}-(\text{CH}_2)_k-\text{CO}]$ , where the half-sum of  $n + m$  is equal to or greater than 6 and  $k$  is a number equal to or greater than 6, or by copolymers comprising units and/or sequences having the formula  $x_i[\text{O}-(\text{CH}_2)_{n_i}-\text{OCO}-(\text{CH}_2)_{m_i}-\text{CO}]$ ;  $y_j[\text{O}-(\text{CH}_2)_{k_j}-\text{CO}]$  where:  $i, j = 1-5$ ;

$n_i = 2-22$ ;  $m_i = 0-20$ ;  $k_j = 1-21$ ;  $\sum_{i=1}^5 x_i + \sum_{j=1}^5 y_j = 1$  and  $x_i$  and  $y_j$  vary between 0 and

1 and are molar fractions of the various units such that  $\sum_{i=1}^5 x_i \cdot \left(\frac{n_i+m_i}{2}\right) + \sum_{j=1}^5 y_j \cdot k_j \geq 6$ ,

or

b) recurring units  $Z = [\text{O}-(\text{CH}_2)_a-\text{OCO}-(\text{CH}_2)_b-\text{CO}]$  where  $a = 2-3$ ,  $b = 7-11$ ,

and has an intrinsic viscosity (in chloroform at  $25^\circ\text{C}$ ) greater than 0.7 and up to 2.5 dl/g, a

melting point from  $60^\circ$  to  $110^\circ\text{C}$ , and a biodegradability such that, under composting conditions,

a 30  $\mu\text{m}$  film of said resin shows a decomposition of less than 10% in 14 days and more than

90% in six months.

--2. (Canceled)--

--3. (Currently Amended) The method of claim 1, in which the polyester resin is produced by polycondensation of bicarboxylic aliphatic acids with from 2 to 22 carbon atoms and of diols with from 2 to 22 carbon atoms, selected in a manner such that the half-sum of the number of carbon atoms relating to the acid and to the diol is greater than 6, or by polycondensation of hydroxyl-acids, or by ring-opening of corresponding lactones or lactides having 7 to 22 carbon atoms.--

--4. (Currently amended) The method of claim 3, in which the diacids and the dialcohols are obtained from renewable resources.--

--5. (Currently amended) The method of claim 1, in which the polyester resin is selected from polyethylene sebacate, polybutandiol sebacate, polyhexandiol azelate, polyhexandiol sebacate, polynonandiol azelate, polynonandiol sebacate, polyoctandiol azelate, polyocatandiol brassilate, polydecandiol sebacate, and polydecandiol brassilate.--

--6. (Canceled)--

--7. (Currently amended) The method of claim1, in which the polyester resin is subjected to an upgrading process.--

--8. (Currently amended) The method of claim1, in which the polyester resin is a component of a blend of unmodified or modified polysaccharides.--

--9. (Currently amended) The method of claim1, in which the polyester resin contains mineral or vegetable fillers and/or additives selected from lubricants, plasticizers, colourings, flavourings, perfumes, flame-proofing agents, stabilizers with regard to hydrolysis and to thermal degradation, and antioxidants.--

--10. (Currently amended) The method of claim1, in which the mean numeral molecular weight of the polyester resin is between 45000 and 70000.--

--11. (Currently amended) The method of claim1, wherein said articles are selected from:

- coatings which are produced by extrusion-coating, with water-vapour barrier properties, and which are usable for the packaging of fresh milk and dairy products, of meat, and of foods having high water content,
- multilayer laminates with layers of paper, plastics material and or paper/plastics material, aluminum and metalized films,
- films as such and multi-layer films with other polymer materials,
- sacks for organic refuse and for grass cuttings with periods of use longer than 1 week,
- single-layer and multi-layer food packaging comprising containers for milk, toghurt, cheeses, meat and beverages, in which the layer in contact with the food or beverage is formed by the aliphatic polyester,
- composites with gelatinized or destructured starch, and/or complexed starch or natural starch as a filler,
- mono-directional and bi-directional films,

- semi-expanded and expanded products produced by physical and/or chemical means, by extrusion, injection, or agglomeration or pre-expanded particles,
- expanded sheet and expanded containers for foods, for drugs, and for fast food.
- fibres, fabrics and non-woven fabrics in the hygiene, sanitary, and clothing fields,
- composites with mineral and vegetable fillers
- thermoformed sheets for the food or fast-food packaging fields,
- bottles for the food cosmetics and pharmaceutical fields,
- fishing nets,
- containers for fruit and vegetables,
- extruded sections usable in the fast-food field and irrigation pipes in the agricultural field.--

--12. (Currently amended) Polyester resins as defined in claim 1 in blends with other biodegradable polymers having a permeability to water vapour greater than  $300 \text{ g} \times 30 \text{ } \mu\text{m}/\text{m}^2$  per day at  $38^\circ\text{C}$  and 90% RH.

--13. (Currently amended) Polyester resins as defined in claim 1 in blends with polylactic acid.--

--14. (Currently amended) Polyester resins as defined in claim 1 in blends with other non-biodegradable polymers, the said polymers having a permeability to water vapour greater than  $300 \text{ g} \times 30 \text{ } \mu\text{m}/\text{m}^2$  per day at  $38^\circ\text{C}$  and 90% RH.

--15. (Currently Amended) An article of manufacture comprising:

a biodegradable article having a permeability to water vapor of less than  $350 \text{ gx}30\mu\text{m}^2$  per day at  $38^\circ\text{C}$  and 90% RH manufactured from aliphatic polyester resin,

wherein said aliphatic polyester resin further comprises

a) recurring units  $X = [\text{O}-(\text{CH}_2)_n-\text{OCO}-(\text{CH}_2)_m-\text{CO}]$  and/or  $Y = [\text{O}-(\text{CH}_2)_k-\text{CO}]$ , where the half-sum of  $n + m$  is equal to or greater than 6 and  $k$  is a number equal to or greater than 6, or by copolymers comprising units and/or sequences having the formula  $x_i[\text{O}-(\text{CH}_2)_{n_i}-\text{OCO}-(\text{CH}_2)_{m_i}-\text{CO}]$ ;  $y_j[\text{O}-(\text{CH}_2)_{k_j}-\text{CO}]$  where:  $i, j = 1-5$ ;

$n_i = 2-22$ ;  $m_i = 0-20$ ;  $k_j = 1-21$ ;  $\sum_{i=1}^5 x_i + \sum_{j=1}^5 y_j = 1$  and  $x_i$  and  $y_j$  vary between 0 and

1 and are molar fractions of the various units such that  $\sum_{i=1}^5 x_i \cdot \left(\frac{n_i + m_i}{2}\right) + \sum_{j=1}^5 y_j \cdot k_j \geq 6$ ,

or

b) recurring units  $Z = [\text{O}-(\text{CH}_2)_a-\text{OCO}-(\text{CH}_2)_b-\text{CO}]$  where  $a = 2-3$ ,  $b = 7-11$ , and

has an intrinsic viscosity (in chloroform at  $25^\circ\text{C}$ ) greater than 0.7 and up to 2.5 dl/g, a melting point from  $60^\circ$  to  $110^\circ\text{C}$ , and a biodegradability such that, under composting conditions, a  $30 \mu\text{m}$  film of said resin shows a decomposition of less than 10% in 14 days and more than 90% in six months.--